ing guidance to comprehensive colleges and community colleges in the development of training programs for nurses and allied health personnel, and in providing continuing education programs for health manpower under the supervision of a university health science center.

Another important advantage of the development of area health education centers would be to remove the pressure to develop much more costly full-scale medical schools in communities that are too small to provide an adequate supply of specialized cases for a university teaching hospital or are located quite close to existing medical schools. The Carnegie Commission has recommended nine new medical schools in metropolitan areas with populations of 350,000 or more that do not now have a medical school and are not located near an area that does have a medical school. One of these areas, Duluth, Minn, now has a developing school. A good example of an area that is large enough to be appropriate for a medical school but for which we recommended an area health education center instead because of its location quite near an existing medical school is Fort Worth, Tex, which is only about 30 miles from Dallas where the University of Texas Southwestern Medical School and Baylor University Medical Center are located.

The cost of developing area health education centers is likely to vary considerably from area to area, depending in large part on the quality of existing hospital facilities and whether they now have internship and residency programs. There are about 20 communities outside of large metropolitan areas that would be suitable for the location of area health education centers that now have hospitals affiliated with medical schools and are conducting sizable house officer progorams.[5] The great majority of these are communities that were suggested as appropriate locations for area health education centers in the Commission's report. There are other communities with hospitals that have internship and residency programs that are not as yet affiliated with medical schools. Some of these hospitals both in the affiliated and nonaffiliated group are located in states that have relatively low ratios of physicians to population.

The Commission's recommendation for area health education centers has aroused widespread interest, and there are indications that federal officials have favorable attitudes toward its implementation. In conclusion, I suggest that initial pilot programs might be developed centering around community hospitals that now have internship and residency programs and that are located in states with low physician-population ratios. There are also a few neighborhood health centers supported by Office of Economic Opportunity funds in ghetto areas of large cities that have interns and residents and that have developed high-quality health service programs. Such centers would also be logical choices for pilot area health education programs that could be developed in conjunction with innovations in more effective delivery of health services to the community.

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Educational Implications of a National Health Service Corps

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In the past decade America has experienced a rediscovery of poverty, and a growing consensus that health care is a right, not a privilege. Many politicians and leaders of the medical profession have felt compelled to speak of a health-care crisis in the United States, a crisis in which health services have not been accessible to segments of our urban and rural populations. The Urban Coalition has estimated that in the United States today, approximately 2 million people receive no medical care, about 20 million receive part of the care they need, and nearly 20 million more people living in the ghettos receive less than adequate care (unpublished report distributed at Health Manpower Conference, August 1969). The realization that tens of millions of individuals are not receiving adequate health care has generated many proposals to address the problem; a National Health Service Corps is one.

In the past two to three years a National Health Service Corps has been proposed in a number of different forms and has been discussed by many groups. Common to all proposals has been the idea that a group of health personnel, nationally organized, would attempt to meet the health service needs of those in rural and urban areas where health services are inadequate.

The distinguishing aspect of the proposals has been the incentive provided to recruit physicians for such a Corps. One type of Corps would require national service from all physicians, and in some proposals would pay a stipend and tuition for all medical students. In a second type of Corps, the physician would volunteer for service, his incentive being both the opportunity to fulfill a felt social commitment and a financial incentive, a stipend and a loan-forgiveness program to cover tuition in return for his future service in the Corps. A third type of Corps, in which service would fulfill the physician's military requirement, has also been vigorously discussed and was authorized by law on Dec 31, 1970.

In discussing the educational implications of a National Health Service Corps, it is important to emphasize that the primary function of the Corps is service—to provide health services where they are inadequate. With this in mind, let us consider briefly the probable educational implications of such a Corps.

Theoretically, a National Health Service Corps in addition to its primary service function would staff and develop models in both innovative and traditional ways to improve the delivery of health services where they are inadequate. Proponents of a National Health Service Corps emphasize that Corps-directed innovation in terms of manpower combinations, facility arrangements, and community-provider cooperation could provide new models and strengthen present ones for care in these service-deprived areas. Corps personnel could also provide staff so that on-going innovative models of care could function more effectively. The models, staffed either entirely or partially by Corps personnel, would be demonstrations serving to educate the profession and the public regarding their acceptability, effectiveness, and feasibility. Additionally, Corps programs could be used as an educational resource to train health personnel.

Medical and other health students presumably could participate and receive training in the various settings utilized by the Corps to meet the health needs of communities lacking adequate health services. Students could work with Corps health personnel delivering primary care in ghettos and rural areas. Those who spent an elective period in a Corps facility could cooperate in team arrangements with professionals and allied health personnel who divided their responsibilities so that care was delivered most effectively to meet the diverse health needs of their patients. If the various programs were so designed, students could gain understanding of the operational meaning of continuous, comprehensive patient care.

Physicians who were attracted to serve in a Corps would be directing but also sharing the students' educational experiences as they confronted the communities' health needs. The challenges of planning, evaluation, and administration of services in the Corps would provide practical experience with problems not widely encountered in traditional health training programs.

Conceivably, some units of a Corps could support training programs for the various levels of health personnel involved in Corps health teams. Plans for vocational placement, vertical and lateral job mobility, licensure, and further education might be incorporated into the program.

These are all educational possibilities afforded by a theoretical National Health Service Corps. But one must also consider reality—the present status of the various types of National Health Service Corps proposals—and assess the educational implications of a National Health Service Corps as it is most likely to exist in the near future.

First, let us consider compulsory national service for all physicians which would require service in either a civilian or military Corps. Prominent medical educators, physicians, and many medical students have argued that if the country is to provide for urban and rural health needs, compulsory service may be required to supply the necessary numbers of physicians to areas where they have previously not chosen to practice or organize their services.

This idea of compulsory service is far from popular. The discrimination involved in requiring national service only from physicians is promptly pointed out. Physicians, it seems, are willing to accept discrimination only in a system which conscripts for military service, not civilian service. No professional medical organization presently endorses this concept of compulsory civilian service for physicians. As Rep Jonathan Bingham has suggested, it is also unlikely that Congress in the next several years would require national civilian service from physicians, or anyone else.[1]

The second proposal, a voluntary Corps in which financial incentives are offered has been proposed by the Carnegie Commission, in a report on higher education (October 1970). In their proposal, a part of a student loan used to pay tuition would be repaid by service in the Corps. A fundamental question is how many students would choose to join this type of program. The present state loan-forgiveness programs to induce physicians to practice in areas of need have been failures. In the past, few physicians have participated in such state programs, and many of those who did participate chose to repay their loans with bank dollars rather than service. However, there is now a significant expression of student concern for health problems of people in rural and urban areas, so the financial incentive may prove attractive, especially to students from those areas.

A number of bills introduced in Congress last session proposed financial incentives such as stipends and repayment of loans used for tuition for physicians who would serve in areas with critical health manpower shortages. These bills did not incorporate the idea of a Corps including personnel other than physicians. Although these proposals died in Congress last session, they are being reintroduced in the present Congress, and there is at least a theoretical possibility that sponsors of these bills might support the Carnegie Commission's proposal of a voluntary Corps with financial incentives.

But if such a program is to attract students, educational institutions must continue increasingly to select students from areas where health services are inadequate. They must also provide opportunities for all students to understand the health problems of the community and the different methods of health-services delivery that can be effectively utilized to meet the community health needs, so that students can consider the advantages and disadvantages of such voluntary service, and alternative forms of medical practice in different areas.

A voluntary Corps with financial incentives is a legislative possibility; however, a National Health Service Corps proposal, the Emergency Health Personnel Act of 1970, in which voluntary service fulfills the physician's military obligation became legislative fact on Dec 22, 1970. The act was signed into law on Dec 31, and it provides for the creation of an "identifiable administrative unit" in the Public Health Service whose personnel assigned by the Secretary of Health, Education, and Welfare could work in any federal or nonfederal program in a rural or urban area designated by the Secretary where there are inadequate health services.

There will certainly be no problem attracting physicians to serve in such a program in which they fulfill their military obligations as commissioned officers. In the past several years 3,500 to 4,500 graduating physicians have applied annually for the approximately 700 available commissioned officer positions in the Public Health Service, and this was when the Public Health Service did not have this new authority to deliver services to people in the rural and urban areas, about whom many students are concerned.

The law provides only for a pilot program, authorizing $60 million to be spent in three years. Nevertheless, it is reasonable to expect that the program, funded at this level, with talented and aggressive leadership, could assist in staffing and result in some innovative health-services-delivery models to meet rural and urban health needs.

There is some question whether this program will be funded. The Nixon administration chose not to provide any funds for this program in its budget presented on Jan 29, 1971. But there are a considerable and growing number of requests to HEW from programs which need the personnel that could be supplied through this legislation. This law also has the support of a number of powerful members of Congress. Additionally, the possibility exists that the Nixon administration will find this program an appropriate vehicle to facilitate the development of its Health Maintenance Organizations. (Since this essay was first written, the President indicated in his message to Congress on Feb 18 that he would request $10 million to implement the Emergency Health Personnel Act of 1970.)

In summary, there is not yet an operational National Health Service Corps to meet health service needs, staff and develop innovative and existing health services models of educational value for the public and the profession, and serve as a resource to educate health personnel. But there is a limited possibility that a volunteer Corps providing financial incentives could emerge from Congress in the next several years, and at that time it might capitalize on the efforts of educational institutions to train students who could effectively serve in such a Corps. There is also a law, the Emergency Health Personnel Act of 1970, and with support from medical educators for its bold implementation, it could become an extremely effective National Health Service Corps program, filling the educational role which I have outlined for a theoretical Corps. However, at this point in time, this program can be said to exist only in an embryonic form.

What does this mean for education in the health fields? It means that if community health needs are to be met, educational institutions training health personnel must accept their responsibility to educate personnel to address these needs. What a National Health Service Corps will provide in the future as an educational resource for health students, the profession, and the public must be provided now by the training institutions themselves.

If health services are to be accessible as a matter of right to people in the United States, educational institutions will bear the major responsibility to prepare students to make that right a reality. A National Health Service Corps may increasingly share that responsibility in coming years, but then it will depend on the personnel trained in educational institutions which have already begun to carry out their responsibility.

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The Urban Doctors Program

John T. Daugirdas

Our goal in setting up the Urban Doctors Program was to train physicians from and for the poverty communities of the Chicago area. We wanted to produce physicians who might practice in these communities not because they were "incentivated" to do so, either monetarily or otherwise, but because they saw this form of practice in their own neighborhoods as personally and professionally rewarding.

We believed that there were two variables we could affect at the medical school level to improve the chances of producing this type of community-oriented physician. For the sake of discussion, let us call these "input" and "process." First, we examined the backgrounds of medical students at Northwestern University and at urban medical schools in general. We found that few students at these schools came from poverty communities in the area. We realized that a commitment by a medical school to train people from these communities was one way a school might meet its responsibilities to these communities. It was clear that physicians coming from these areas would be unique assets to their communities if they chose to remain and practice there. They could speak the language of the people in the neighborhood and be most capable of identifying with these people's special needs. Such physicians would have invaluable foreknowledge of the social and cultural structure of their communities. They could use this background to plan their own practices more effectively, and they might serve as nuclei around which group practices in the area could form.

The second variable we examined in regard to the medical school was one of process. We tried to consider the experiences people underwent while in medical school and the relationships they established among themselves, with their patients, and with professionals in other health fields. We tried to become sensitive to the processes taking place, to attitudes being formed regarding what comprehensive health care means and how it should be delivered. It seemed that at Northwestern, as at most other medical schools, students had little firsthand experience with the practice of medicine in the inner city, and even less exposure to the elusive idea of practicing medicine as part of a team of health professionals. We thought that by broadening the medical school experience to include the practice of community-oriented medicine in the inner city, we might attract a future supply of physicians for these areas.

Basically, what we envisioned, then, was a commitment from Northwestern Medical School to take in more than token numbers of students (for example, 25 each year) from poverty communities in the Chicago area, and a further commitment from the school to give its medical students the opportunity to pursue their medical education in the context of the health-care delivery system in these communities. Ideally, the 25 students recruited locally from these very areas would take leadership roles in availing themselves of this educational opportunity. As we envisioned it, a medical student could take on increasing responsibility at health centers in these communities, first at a paraprofessional, then at a professional level. While still in medical school, he could do laboratory work, perform health surveys, or train community health aides, for example. Finally, after receiving a medical degree, he would be ready to serve that community as a physician. In the process, we also hoped that the students from poverty communities would help to further orient the resources of the medical school toward meeting community needs.

Some very basic problems regarding implementation of these principles were immediately apparent. The toughest one related to the identification of the 25 poverty community students the medical school was supposed to admit each year. Where were we going to find them? Disappointingly few young persons from these areas graduate from high school, even fewer enter college, and almost none apply to medical school. Four Chicago-area recruiting agencies, namely, ASPIRA, the

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